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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/486,940	03/03/2000	JIANKANG WU	82231	4319

7590 04/14/2004

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EXAMINER

LANIER, BENJAMIN E

ART UNIT	PAPER NUMBER
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2132

DATE MAILED: 04/14/2004

11

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/486,940

Applicant(s)

WU ET AL.

Examiner

Benjamin E Lanier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-95 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-95 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 March 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-95 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 10, 21, 32, 43, 54, 65 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are circular in nature in that they use the second e-seal to define the second e-seal.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 5-9, 11-14, 16-20, 22-25, 27-31, 33-36, 38-42, 44-47, 49-53, 55-58, 60-64, 66-86 are rejected under 35 U.S.C. 102(b) as being anticipated by Rhoads, U.S. Patent No. 5,768,426. Referring to claims 1, 2, 6, 7, 9, 12, 13, 17, 18, 20, 23, 24, 28, 29, 31, 34, 35, 39, 40, 42, 45, 46, 50, 51, 53, 56, 57, 61, 62, 64, 66-86, Rhoads discloses an image watermarking system wherein an identification word (content digest) and an embedded code are embedded into a

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digital image (Col. 9, lines 17-54 & Col. 10, lines 11-30), which meets the limitation of electronic document including content of an original document in electronic form, a content digest for said content said original document in electronic form, and an electronic seal or e-seal for authenticating said original document in electronic form, said e-seal including a visible seal of an authority and said content digest embedded in said visible seal. Rhoads discloses the use of logos (visible seals) for embedding identification information into an image (Col. 3, lines 47-49). Rhoads discloses normalizing the pixel values to a certain level, thereby upon inspection of a suspected copy, the pixel levels have to be re-normalized to the original images' levels so that a comparison can be made (Col. 10, line 16 – Col. 11, line 42), which meets the limitation of an optically sensitive or sensible component added to said authenticated document for printing using a trusted printing process, said optically sensitive or sensible component containing information for indicating copying or modification of said printed document in a copy or modified version of said printed document. Once normalized you subtract the original image from the newly normalized suspect image within a standard mask region. With this difference image you step through the embedded image codes that were generated earlier. If the suspect image is in fact a copy of the original the identification information should appear when the correct embedded image code is applied to the difference image (Col. 11, line 34 – Col. 12, line 16), which meets the limitation of verifying a watermarked digest of content against a corresponding one of one or more e-seals included in said authenticated electronic document, visually inspecting said visual seal of each of said one or more e-seals, verifying said optically sensitive component of said authenticated printed document, scanning said authenticated printed

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document and extracting a watermark from each of said one or more e-seals, and extracting a content digest from each of said watermarks and verifying said extracted content digest.

Referring to claims 3, 14, 25, 36, 47, 58, Rhoads discloses that the identification information can be encrypted (Col. 27, lines 13-17).

Referring to claims 5, 16, 27, 38, 49, 60, Rhoads discloses that the identification information could be a fingerprint (Col. 2, lines 54-57), which meets the limitation of the content digest is a condensed representation of said original document generated by selecting key items of said content.

Referring to claims 8, 19, 30, 41, 52, 63, Rhoads discloses that the optically sensitive information could be the magnetic strip on a credit card (Col. 2, lines 56-59), which meets the limitation of an optically sensitive component that includes a serial number.

Referring to claims 11, 22, 33, 44, 55, Rhoads discloses that the embedded information is acceptably close to the original in an aesthetic sense (Col. 10, lines 35-36), which meets the limitation of the embedded watermark being imperceptible.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 4, 15, 26, 37, 48, 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rhoads U.S. Patent No. 5,768,426, in view of Stefik U.S. Patent No. 6,233,684. Referring to claims 4, 15, 26, 37, 48, 59, Rhoads discloses an image watermarking system wherein an identification word (content digest) and an embedded code are embedded into a digital image (Col. 9, lines 17-54 & Col. 10, lines 11-30), which meets the limitation of electronic document including content of an original document in electronic form, a content digest for said content said original document in electronic form, and an electronic seal or e-seal for authenticating said original document in electronic form, said e-seal including a visible seal of an authority and said content digest embedded in said visible seal. Rhoads discloses the use of logos (visible seals) for embedding identification information into an image (Col. 3, lines 47-49). Rhoads discloses normalizing the pixel values to a certain level, thereby upon inspection of a suspected copy, the pixel levels have to be re-normalized to the original images' levels so that a comparison can be made (Col. 10, line 16 – Col. 11, line 42), which meets the limitation of an optically sensitive or sensible component added to said authenticated document for printing using a trusted printing process, said optically sensitive or sensible component containing information for indicating copying or modification of said printed document in a copy or modified version of said printed document. Once normalized you subtract the original image from the newly normalized suspect image within a standard mask region. With this difference image you step through the embedded image codes that were generated earlier. If the suspect image is in fact a copy of the original the

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identification information should appear when the correct embedded image code is applied to the difference image (Col. 11, line 34 – Col. 12, line 16), which meets the limitation of verifying a watermarked digest of content against a corresponding one of one or more e-seals included in said authenticated electronic document, visually inspecting said visual seal of each of said one or more e-seals, verifying said optically sensitive component of said authenticated printed document, scanning said authenticated printed document and extracting a watermark from each of said one or more e-seals, and extracting a content digest from each of said watermarks and verifying said extracted content digest. Rhoads does not disclose using an embedding address, shape, and boundary of said watermark as a key in an encryption scheme. Stefik discloses the embedding address of the watermark is a key for encrypting a content digest (Col. 13, lines 50-54). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the address of the watermark for an encryption key in the system of Rhoads in order to avoid encryption key generation.

8. Claims 87-90, 92-95 rejected under 35 U.S.C. 103(a) as being unpatentable over Rhoads U.S. Patent No. 5,768,426, in view of Dziewit U.S. Patent No. 4,981,370, further in view of Mollier U.S. Patent No. 4,467,139. Referring to claims 87-89, 92-95, Rhoads discloses an image watermarking system wherein an identification word (content digest) and an embedded code are embedded into a digital image (Col. 9, lines 17-54 & Col. 10, lines 11-30), which meets the limitation of electronic document including content of an original document in electronic form, a content digest for said content said original document in electronic form, and an electronic seal or e-seal for authenticating said original document in electronic form, said e-seal including a visible seal of an authority and said content digest embedded in said visible seal. Rhoads

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discloses the use of logos (visible seals) for embedding identification information into an image (Col. 3, lines 47-49). Rhoads discloses normalizing the pixel values to a certain level, thereby upon inspection of a suspected copy, the pixel levels have to be re-normalized to the original images' levels so that a comparison can be made (Col. 10, line 16 – Col. 11, line 42), which meets the limitation of an optically sensitive or sensible component added to said authenticated document for printing using a trusted printing process, said optically sensitive or sensible component containing information for indicating copying or modification of said printed document in a copy or modified version of said printed document. Once normalized you subtract the original image from the newly normalized suspect image within a standard mask region. With this difference image you step through the embedded image codes that were generated earlier. If the suspect image is in fact a copy of the original the identification information should appear when the correct embedded image code is applied to the difference image (Col. 11, line 34 – Col. 12, line 16), which meets the limitation of verifying a watermarked digest of content against a corresponding one of one or more e-seals included in said authenticated electronic document, visually inspecting said visual seal of each of said one or more e-seals, verifying said optically sensitive component of said authenticated printed document, scanning said authenticated printed document and extracting a watermark from each of said one or more e-seals, and extracting a content digest from each of said watermarks and verifying said extracted content digest. Rhoads does not disclose distribution of the embedded files over a network. Dziewit discloses establishing a secure communication link between parties at one or more locations (Col. 6, line 31), verifying the identity of each party (Col. 2, lines 24-25), protecting the legitimacy of a signed document in electronic form (Col. 2, line 25-27 & Col. 2, lines 39-41),

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sending a protected, signed electronic document to a receiving party (Col. 11, lines 18-21, and receiving protected electronic document at receiving location (Col. 11, line 22). It would have been obvious to one of ordinary skill in the art at the time the invention was made to distribute the files of Rhoads in the manner disclosed in Dziewit in order to provide a reliable method of document distribution without the use of paper as disclosed in Dziewit (Col. 1, line 65 – Col. 2, line 56). Dziewit does not disclose a receipt from a receiving party to a sending party. Mollier teaches it will always be possible to issue to the sender a receipt (Col. 9, lines 61-63). It would have been obvious to one of ordinary skill in the art at the time the invention was made to send receipts in the delivery system of Dziewit in order to confirm communications as taught in Mollier.

Referring to claim 90, Dziewit discloses the electronic data can be stored on multiple disks or on a memory that provides a dual copy protection scheme (Col. 13, lines 1-3).

9. Claim 91 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rhoads U.S. Patent No. 5,768,426, in view of Dziewit U.S. Patent No. 4,981,370, further in view of Mollier U.S. Patent No. 4,467,139 as applied to claim 87 above, and further in view of Doggett, U.S. Patent No. 5,677,955. Referring to claim 91, Rhoads discloses an image watermarking system wherein an identification word (content digest) and an embedded code are embedded into a digital image (Col. 9, lines 17-54 & Col. 10, lines 11-30), which meets the limitation of electronic document including content of an original document in electronic form, a content digest for said content said original document in electronic form, and an electronic seal or e-seal for authenticating said original document in electronic form, said e-seal including a visible seal of an authority and said content digest embedded in said visible seal. Rhoads discloses the use of

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logos (visible seals) for embedding identification information into an image (Col. 3, lines 47-49).

Rhoads discloses normalizing the pixel values to a certain level, thereby upon inspection of a suspected copy, the pixel levels have to be re-normalized to the original images' levels so that a comparison can be made (Col. 10, line 16 – Col. 11, line 42), which meets the limitation of an optically sensitive or sensible component added to said authenticated document for printing using a trusted printing process, said optically sensitive or sensible component containing information for indicating copying or modification of said printed document in a copy or modified version of said printed document. Once normalized you subtract the original image from the newly normalized suspect image within a standard mask region. With this difference image you step through the embedded image codes that were generated earlier. If the suspect image is in fact a copy of the original the identification information should appear when the correct embedded image code is applied to the difference image (Col. 11, line 34 – Col. 12, line 16), which meets the limitation of verifying a watermarked digest of content against a corresponding one of one or more e-seals included in said authenticated electronic document, visually inspecting said visual seal of each of said one or more e-seals, verifying said optically sensitive component of said authenticated printed document, scanning said authenticated printed document and extracting a watermark from each of said one or more e-seals, and extracting a content digest from each of said watermarks and verifying said extracted content digest. Dziewit discloses establishing a secure communication link between parties at one or more locations (Col. 6, line 31), verifying the identity of each party (Col. 2, lines 24-25), protecting the legitimacy of a signed document in electronic form (Col. 2, line 25-27 & Col. 2, lines 39-41), sending a protected, signed electronic document to a receiving party (Col. 11, lines 18-21, and

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receiving protected electronic document at receiving location (Col. 11, line 22). Mollier teaches it will always be possible to issue to the sender a receipt (Col. 9, lines 61-63). Dziewit does not disclose a method of electronic check transaction. Doggett discloses establishing a secure network link from a service center to a payee, a payer, and one or more respective banks (Col. 5, lines 52-54), signing an electronic check (Col. 7, lines 50-53) and sending said check to the payee (Col. 7, lines 62-64), claiming said check for the payee (Col. 8, lines 19-25), clearing the transactions (Col. 8, line 34), and refusing the payment if the check is not legitimate (Col. 8, lines 37-45). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the method of electronic check payment of Doggett in Dziewit for the purpose of effecting transfer of fund between payer and payee.

Conclusion

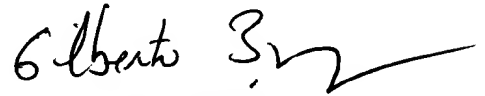
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin E Lanier whose telephone number is 703-305-7684. The examiner can normally be reached on M-Th 7:30am-5:00pm, F 7:30am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (703)305-1830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Benjamin E. Lanier



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